

## Product datasheet for **TA373899**

### **B4GALT1 Rabbit Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB,1:500 - 1:2000 IHC,1:50 - 1:100
Reactivity:	Human
Modifications:	Unmodified
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 50-215 of human B4GALT1 (NP_001488.2).
Formulation:	Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	42kDa/43kDa
Gene Name:	beta-1,4-galactosyltransferase 1
Database Link:	<a href="#">Entrez Gene 2683 Human P15291</a>



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**Background:**

This gene is one of seven beta-1,4-galactosyltransferase (beta4GalT) genes. Each beta4GalT has a distinct function in the biosynthesis of different glycoconjugates and saccharide structures. As type II membrane proteins, they have an N-terminal hydrophobic signal sequence that directs the protein to the Golgi apparatus and which then remains uncleaved to function as a transmembrane anchor. This gene is unique among the beta4GalT genes because it encodes an enzyme that participates both in glycoconjugate and lactose biosynthesis. For the first activity, the enzyme adds galactose to N-acetylglucosamine residues that are either monosaccharides or the nonreducing ends of glycoprotein carbohydrate chains. The second activity is restricted to lactating mammary tissues where the enzyme forms a heterodimer with alpha-lactalbumin to catalyze  $\text{UDP-galactose} + \text{D-glucose} \rightleftharpoons \text{UDP} + \text{lactose}$ . The two enzymatic forms result from alternate transcription initiation sites and post-translational processing. Two transcripts, which differ only at the 5' end, with approximate lengths of 4.1 kb and 3.9 kb encode the same protein. The longer transcript encodes the type II membrane-bound, trans-Golgi resident protein involved in glycoconjugate biosynthesis. The shorter transcript encodes a protein which is cleaved to form the soluble lactose synthase.

**Synonyms:**

b4Gal-T1; beta4Gal-T1; DKFZp686N19253; GGTB2; GT1; GTB; MGC50983